

**REMARKS**

Claims 1-2 were pending in this application prior to this amendment.

Claims 1 and 2 were rejected.

**In order to insure that there is no confusion about the status of this application, the applicant has set out below the prosecution history of this application. It is noted that a notice of appeal is being filed on the same day as this response in order to expedite a final resolution of this case.**

**7/31/03 First Office Action:**

- 1) Claims 3-9 and 11 allowed.
- 2) Claims 1 and 2 rejected under 35 USC 112.
- 3) Claim 10 rejected under 35 USC 102 based on Schaffer reference

**1/12/04 Second Office Action:**

- 1) Claims 2-8 and 11 allowed
- 2) Claims 1 and 9 rejected under 35 USC 112

**6/7/04 Third Office Action:**

- 1) Restriction requirement. Two groups specified.
- 2) Group 1 included claims 1-8 and 11
- 3) Group 2 included claims 9 and 12.
- 4) In response, Group 1 was selected.

**2/8/05 Fourth Office Action:**

- 1) Claims 3-12 allowed
- 2) Claims 1 and 2 rejected based on Patent 5,953,338 (Ma)

**6/15/05 Fifth Office Action:**

- 1) Restriction Requirement: Three groups specified.
- 2) Group 1 included claims 1, 2 and 10.
- 3) Group 2 included claims 3-8 and 11.
- 4) Group 3 included claims 9 and 12.

**10/5/06 Sixth Office Action Rejection Final:**

- 1) Examiner says claims 3-12 are allowed.
- 2) Claims 1 and 2 rejected based on Ma reference.
- 3) Our response noted that this Office Action did not take into account the response that we filed on 7/13/05 that selected group 1.
- 3) We filed a notice of appeal.

**1/31/05 Seventh Office Action – Rejection Final:**

- 1) says only claims 1 and 2 are pending.  
(note: this is correct in view of our 7/13/05 response)
- 2) Claims 1 and 2 rejected based on Ma reference.

In the Final Office Action dated January 31, 2006, claims 1-2 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ma et al. (US Patent No. 5,953,338).

Applicant respectfully requests reconsideration and allowance of claims 1 and 2 for the reasons explained below:

The cited reference (Ma, patent 5,953,338) relates to a system that accommodates multiple users. Each user has an agreement with the carrier which specifies how much bandwidth that user may utilize and the quality of service to which the user is entitled. The system described in the reference monitors bandwidth usage to insure that the terms of agreements are not violated. As stated in the Ma reference at the bottom of column 3 and top of column 4:

"Preferred embodiments of the control module generally perform the following procedure: (i) checks with the agreement to determine whether the parameter requirements of the virtual connections are compliant with the agreement, (ii) checks with the agreement governing quality of service requests to determine whether the quality of service requirements of the virtual connections are compliant with the agreement"

Thus, the Ma reference relates to checking to insure that the amount of bandwidth being use by a user, and the user's quality of service conform to an agreement that the user has with a carrier.

At column 2 lines 12 to 23, Ma makes clear that his system is dealing with bandwidth and network performance of a requested "virtual path connection" or of a "virtual channel connection" column 2 lines 12 to 23 in the Ma reference state:

"A request for either a virtual path connection or a virtual channel connection, whether it is a PVC or SVC, typically includes the quality of service and traffic parameters that characterize the connection. The parameter corresponding to the quality of service indicates whether the requestor of the connection requires any guarantees from the network to transport data over the connection at a certain rate, which is described by the traffic parameter corresponding to the traffic. Parameters corresponding to traffic include

features, such as peak cell rate, average cell rate, and cell delay variation. Parameters corresponding to traffic generally describe the network bandwidth that will be taken up by the connection".

Clearly the Ma reference is dealing with the bandwidth of paths. The Ma reference makes no mention of the classification of traffic based on information in the packets. Stated differently Ma is dealing with what is known in the art as Quality of Service. The Ma reference does not deal with Class of service.

It should be noted that "quality of service" and "class of service" are two very different metrics that are used in the technical literature related to the area of network communications. The terms "quality of service" and "class of service" are well known and well defined terms in the area of network communications.

Class of service is frequently referred to by the abbreviation CoS. Class of service is a queuing discipline. Frequently, packets transmitted in packet networks have CoS tags in order to classify the packets into different priority queues.

Quality of service is frequently referred to by the abbreviation QoS. In general, quality of service refers to the probability of a packet successfully passing between two points in the network. QoS takes into account such things as dropped packets, network delay, out-of-order packet delivery, and errors in transmission of packets.

The terms Quality of Service and Class of Service are widely and frequently used terms in the technical literature. Those skilled in the art clearly understand that these terms refer to different metrics. The followings are publicly available definitions of Class of Service and of Quality of service from the Internet (see: Internet Wikipedia web site).

Quality of service:

"In the fields of packet-switched networks and computer networking, the traffic engineering term Quality of Service (QoS) refers to the probability of the telecommunication network meeting a given traffic contract, or in many cases is used informally to refer to the probability of a packet succeeding in passing between two points in the network.

In the field of telephony, telephony quality of service refers to lack of noise and tones on the circuit, appropriate loudness levels etc., and includes grade of service."

**Class of service**

Class of Service (CoS) is a queuing discipline. An algorithm compares fields of packets or CoS tags to classify packets and to assign to queues of differing priority. CoS does not ensure network performance or guarantee priority in delivering packets.

**In summary:**

Quality of Service refers to the quality of a transmission. It defines quality of a transmission path.

Class of service is a designation or classification of packets. Packets can be classified and tagged for any reason that a user may desire.

The Ma reference deals with bandwidth allocation and quality of service. The term Class of service is never even mentioned in the Ma reference.

The invention defined by applicant's claims 1 and 2 relates to Class of Service. Applicant's system dynamically allocates bandwidth based upon the class of service of the requests received by the system.

**Claim 1 specifies:**

"means for dynamically adjusting the bandwidth allocated to said data traffic and said voice traffic depending upon the class of service of said traffic".

**Claim 2 (as amended) specifies:**

"means for dynamically allocating bandwidth for multiple streams of data traffic and for multiple streams of voice traffic drawing from said pool of trunk interconnection resources based upon the class of service of said streams of data traffic and said streams of voice traffic".

With the applicant's system the amount of bandwidth allocated to each request for bandwidth is dependent upon the class of service of the various pending and active

request. Thus, in applicant's system, requests with a higher class of service can receive a priority in the allocation of bandwidth.

In summary, applicant's claims 1 and 2 relate to a system which allocates bandwidth based upon class of service. The reference, on the other hand, is dealing with quality of service issues. Class of service relates to characteristics and queuing of the requests themselves. Quality of service on the other hand relates to bandwidth availability and performance of the network in conjunction with client service contract agreements.

**In conclusion:** Since the reference does not teach or suggest the invention claimed in claims 1 and 2, application respectfully requests allowance of claim 1 and 2 (in addition to previously allowed claims 2 to 12).

If it appears that a telephone interview would be helpful in advancing the case, please call the undersigned at 503 222-3613 or 503-697-7844.

**Note:**

It is noted that a Notice of Appeal is being filed at the same time as this response. The Notice of appeal is being filed with a separate letter of transmission.

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Respectfully submitted,



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